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AMSAT NEWS SERVICE
ANS-095

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-095 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 095.01
>From AMSAT HQ KENSINGTON, MD.
DATE April 5, 2015
To All RADIO AMATEURS
BID: $ANS-095.01

AMSAT Plans Dayton Rollout for 2015 "Getting Started" Satellite Book

Gould Smith's book, "Getting Started With Amateur Satellites", is being updated to tell you all about how you can get ready to operate through the Fox-1 satellites launching later this year. Additional chapters in the book tell you about tracking software, orbital mechanics, antennas, radios, Doppler tuning, and operating techniques. Chapters are also being added to tell you about the new satellites soon becoming available for amateur radio.

Going beyond brief descriptions in hamfest flyers, this book will provide a complete reference for new satellite users to assemble a basic station and to make your first satellite contacts. Also this

book you will teach you how to incrementally upgrade your initial FM satellite station, time and budget permitting, to include automated tracking as well as operating through the CW/SSB linear passband satellites.

A companion Fox-1A reference sheet is also being planned for release at Dayton. This will be made available for AMSAT's FieldOps team for distribution at hamfests and satellite operating demonstrations.

Watch for the 2015 "Getting Started With Amateur Satellites" book and reference sheet at the AMSAT booth at the Dayton Hamvention. The book will also be available in the AMSAT Store shortly after Dayton: http://store.amsat.org/catalog/

[ANS thanks the AMSAT Office for the above information]

TAPR/AMSAT Joint Hamvention Banquet Will be on May 15

Join us at the Dayton Hamvention this year for the TAPR/AMSAT Banquet on Friday evening, May 15. Doors open at 1830 for a cash bar, with buffet dinner served at 1900.

Reservations must be made in advance in the AMSAT Store: http://store.amsat.org/catalog/product_info.php?products_id=88 with the cost of $35 per person. Tickets will not be sold at Dayton. Tickets purchased online may be picked up at the AMSAT booth (433-435, 444-446). Orders must be placed by 1800 EDT, Tuesday, May 12th. No exceptions.

Come hungry and loosen your belt a notch. The dinner menu includes:

+ Choice of entree:
  o Prime Rib of Beef
  o Chicken Piccata with Lemon Caper Sauce
  o Medallions of Grilled Pork Tenderloin
+ Fresh Mashed Potatoes
+ Wild Rice Pilaf with Pecans and Apricots
+ Fresh Garden Tossed Salad
+ Rolls
+ Assorted Cakes and Cheesecakes
+ Coffee and Ice Tea
+ There will be a cash bar serving beer, wine, and mixed drinks.

Watch for the upcoming announcement of this year's after dinner speaker.

The dinner will be held at:
  Jefferson Room
  The Kohler Presidential Banquet Center
  4548 Presidential Way
  Kettering, OH 45429

[ANS thanks the AMSAT Dayton Hamvention Posse for the above information]

March/April Edition of the AMSAT Journal Sent to Printers

March/April edition of the AMSAT Journal was sent to the printers March 31. Editor JoAnne Maenpaa, K9JKM, Would like to thank Bernhard, VA6BMJ; Douglas, KA2UPW/5; James, K3JPH; and Joe, KB6IGK, for their help on getting this issue ready.

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+ Apogee View
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+ AMSAT at the HamCation
+ AMSAT and University of Iowa Partner on Scientific Payload for Fox-1D
+ Orbital Debrief for March/April 2015
Paul Stoetzer N8HM
+ Minutes of the 2014 AMSAT-NA Board of Directors Meeting

[ANS thanks JoAnne K9JKM for the above information]

LibreCube Open Source CubeSat Projects

Those of you interested in open source may want to have a look at www.librecube.net where you will find a number of common CubeSat products available for you.

You may freely modify, produce, improve, and share them. Please read the included license files for details.

They are hosted by LibreCube, a non-profit initiative that has the objective to promote open source CubeSat design and foster collaboration among the CubeSat community.

Your Feedback is most welcome.

[ANS thanks LibreCube and the CubeSat mailing list for the above information]

AMSAT-SM Announces Committee for 2015-2016

AMSAT-SM Committee for 2015-2016 has been announced

Chairman Hakan - SM7WSJ
Secretary Lars - SM0TGU
Treasurer Kim - SM1TDX.

At the moment AMSAT-SM has 148 members but only a few are active via satellite. But, we are still alive and we are very active with news on our website and Twitter.

AMSAT-SM is the Swedish section of AMSAT with aprox 150 members (2015). One of our objectives is to inform Swedish hams about the fun with amateur satellites! Not many SM hams are active via satellite at the moment. With the help from our swedish webpage and HF-net we hope that more swedish hams should be using amateur satellites.
The AMSAT-SM annual meeting is held every spring. We run a HF-net on 80 meters every Sunday with lots of news about satellites and space.

AMSAT-SM website
http://www.amsat.se/

English language website
http://www.amsat.se/english-info/

AMSAT-SM is using the Internet homepage for members information and news. You can find articles, news, links and lots of more information about satellites. The large main page is only in Swedish because there are allready a lot of good sites about amateur satellites in english. We provide the following information:

FAQ and technical page
New amateur satellites update
Latest telemetry from several microsats
A news service on the homepage called e-Journal
Active on Twitter, Facebook and Youtube. See links on right frame on webpage.

AMSAT-SM has a mailing list (just like the AMSAT-BB list) that was started in 1998. Most of the mail are in swedish, but you are welcome to subscribe.
Send an e-mail to: amsat-sm-subscribe(a)yahoogroups.co.uk

Contact: You can reach AMSAT-SM at:

AMSAT-SM
c/o Lars Thunberg
Revirvägen 17
192 73 Sollentuna
Sweden

E-mail:
info at amsat.se

English website
http://www.amsat.se/english-info/

[ANS thanks Lars Thunberg SM0TGU and AMSAT-SM for the above information]

ISS Slow Scan TV Expected Weekend of April 11

In commemoration of the 54th anniversary of the first human spaceflight by Yuri Gagarin which took place on April 12, 1961, the Russian Federal Space Agency (Roscosmos) announced that SSTV activity will take place from the ISS. As with similar to events this past winter the images can be captured on 145.800 MHz FM using SSTV mode PD180.

Those capturing images are encouraged to upload them to http://www.spaceflightsoftware.com/ARISS_SSTV/submit.php
Uploaded images may be viewed at http://www.spaceflightsoftware.com/ARISS_SSTV/

Please be advised that situational demands on crew time could result in postponement or cancellation of any ARISS activity. Please pay attention to the possibility of any change in scheduling.

[ANS thanks ARISS for the above information]

GRACE mission P-PODs including Fox-1A were integrated in the NPSCuL

UPDATE - The P-PODs were delivered to Naval Postgraduate School this week and have been integrated in the NPSCuL.

The video linked below was provided to all of the GRACE mission CubeSat teams by Justin Foley of Cal Poly.

Justin says "A few years back we put together a video that outlines the process we go through to get CubeSats on the Atlas V. This video follows the payload we put on NROL-36, aka OUTSat, which launched from VAFB and carried 11 cubes. The process is very similar to what your satellites are going through now."

https://youtu.be/6OMT493w29M

Photos of the P-POD integration in the Cal Poly clean room, which is where this video begins the story, can be viewed at http://www.amsat.org/. The last two CubeSats were integrated in their P-POD March 26. All of the P-PODs then head up to the Naval Postgraduate School next week for integration in the NPSCuL and acceptance testing, and then be sent on to Vandenberg (cue video) -

[ANS Thanks to Justin D. Foley for the YouTube video link and AMSAT for the above information]

Wisconsin Balloon Launch Includes 2M Voice Beacon

Wisconsin HAB is doing our second launch, which is participating as part of the Global Balloon Space Challenge.

Date: 4/18/2015
Time: 8:00 AM CDT Setup, 9:00 AM CDT Launch

If you want to see it in person, EVERYONE is welcome to stop out and watch. It's at a park so there's lots of room. Join us!

Highland Village Park, located at 755 N Park St, Highland, WI 53543

(about 1 hour West of Madison, WI)

If you can't make it in-person, watch it LIVE on YouTube. That's right, we will be streaming LIVE on YouTube @ https://www.youtube.com/watch?v=Uvs2jdcJdek

If you're into amateur radio, you can monitor our chase & tracking at FM38 http://www.fm38.org/tiki-index.php.
Additionally, we will be transmitting a voice beacon on 146.430 MHz and using Simplex @ 146.550 Mhz during the recovery effort.

If you are a visual person and want to follow the balloon via Google Maps,
you can visit http://aprs.fi/.

Additionally, we will be updating Facebook and tweeting @WisconsinHAB https://twitter.com/WisconsinHAB/

[ANS thanks Wisconsin High Altitude Ballooning and the Balloon_Sked at yahoogroups.com mailing list for the above information]

Student Spaceflight Experiments Program -- Mission 9 to the International Space Station

The National Center for Earth and Space Science Education and the Arthur C. Clarke Institute for Space Education, in partnership with NanoRacks LLC, announce an authentic science, technology, engineering and mathematics, or STEM, opportunity for school districts across the U.S. and space station partner nations. The newest flight opportunity, Mission 9 to the International Space Station, or ISS, gives students across a community the ability to design and propose real experiments to fly in low-Earth orbit on the ISS. This opportunity is part of the Student Spaceflight Experiments Program, or SSEP.

Each participating community will receive a real microgravity research minilaboratory capable of supporting a single microgravity experiment and all launch services to fly the minilab to the space station in spring 2016 and return it to Earth. An experiment design competition in each community -- engaging typically 300+ students -- allows student teams to design and propose real experiments vying for their community's reserved minilab. Content resources for teachers and students support foundational instruction on science in microgravity and experimental design. Additional SSEP programming leverages the experiment design competition to engage the community, embracing a learning community model for STEM education.

This competition is open to students in grades 5-12 and college. Informal education groups and organizations are also encouraged to participate. Interested communities must inquire about the program no later than April 30, 2015. The National Center for Earth and Space Science Education is available to help interested communities in the U.S. secure the needed funding.

To learn more about this opportunity, visit the SSEP Mission 9 to International Space Station National Announcement of Opportunity at http://tinyurl.com/ANS095-New-Flight-Opp.

SSEP is enabled through a strategic partnership with NanoRacks LLC

working with NASA under a Space Act Agreement as part of the utilization of the International Space Station as a national laboratory. The Center for the Advancement of Science in Space (http://www.iss-casis.org/) is a national partner on SSEP. To view a list of all SSEP national partners, visit http://ssep.ncesse.org/national-partners/.

If you have any questions about this opportunity, please email SSEP National Program Director Jeff Goldstein at jeffgoldstein(a)ncesse.org.

[ANS thanks NASA Education Express Message -- April 2, 2015 for the above information]

21st Century Teacher Academy

The 21st Century Teacher Academy, or 21CTA, is a unique educator professional development workshop opportunity for K-12 educators. The workshop is designed to immerse teachers in the best practices and methodologies to develope and implement real-world, project based learning, or PBL, curriculum using NASA's missions. 21CTA is sponsored by the Office of Education and Public Outreach at NASA's Ames Research Center, and funded by NASA's Aeronautics Research Mission Directorate.

21CTA is a two-week workshop held July 8-22, 2015. The workshop will be led by content experts, PBL experts, technical subject matter experts and a master teacher. The workshop will take place at NASA's Ames Research Center in Moffett Field, California. Attendees will receive a $4,500 stipend. Teacher teams are highly encouraged!

Applications are due April 30, 2015. Interested K-12 educators should apply through NASA's One-Stop Shopping Initiative website at http://go.nasa.gov/1ECJ0kz.

If you have questions about the 21st Century Teacher Academy, please email ARC-TeacherAcademy(a)mail.nasa.gov.

[ANS thanks NASA Education Express Message -- April 2, 2015 for the above information]

US ARISS School Proposal Window Closes in 10 Days

ARISS is now accepting proposals for U.S. schools wishing to schedule contacts between their students and the International Space Station for the next cycle. Details on submitting proposals can be found below in the attached ARRL News Release.

Message to US Educators

Amateur Radio on the International Space Station

Contact Opportunity

Call for Proposals
Proposal Window February 15 - April 15, 2015

The Amateur Radio on the International Space Station (ARISS) Program

is seeking formal and informal education institutions and organizations, individually or working together, to host an Amateur Radio contact with a crew member on board the ISS. ARISS anticipates that the contact would be held between *January 1, 2016 and June 30, 2016*. Crew scheduling and ISS orbits will determine the exact contact dates. To maximize these radio contact opportunities, ARISS is looking for organizations that will draw large numbers of participants and integrate the contact into a well-developed education plan.

The deadline to submit a proposal is April 15, 2015.
Proposal information and documents can be found at www.arrl.org/hosting-an-ariss-contact.

The Opportunity

Crew members aboard the International Space Station will participate in scheduled Amateur Radio contacts. These radio contacts are approximately 10 minutes in length and allow students and educators to interact with the astronauts through a question-and-answer session.

An ARISS contact is a voice-only communication opportunity via Amateur Radio between astronauts and cosmonauts aboard the space station and classrooms and communities. ARISS contacts afford education audiences the opportunity to learn firsthand from astronauts what it is like to live and work in space and to learn about space research conducted on the ISS. Students also will have an opportunity to learn about satellite communication, wireless technology, and radio science. Because of the nature of human spaceflight and the complexity of scheduling activities aboard the ISS, organizations must demonstrate flexibility to accommodate changes in contact dates and times.

Amateur Radio organizations around the world, NASA, and space agencies in Russia, Canada, Japan and Europe sponsor this educational opportunity by providing the equipment and operational support to enable direct communication between crew on the ISS and students around the world via Amateur Radio. In the US, the program is managed by AMSAT (Radio Amateur Satellite Corporation) and ARRL (American Radio Relay League) in partnership with NASA.

More Information

Interested parties can find more information about the program at www.ariss.org and www.arrl.org/ARISS.

For proposal information and more details such as expectations, proposal guidelines and proposal form, and dates and times of Information Sessions go to www.arrl.org/hosting-an-ariss-contact.

Please direct any questions to ariss at arrl.org.

[ANS thanks ARISS for the above information]

ARISS News

+ A Successful contact was made between CEPES, Jodoigne, Belgium and Astronaut Samantha Cristoforetti IZØUDF using NA1SS The contact began 04-01 09:20 UTC and lasted about nine and a half minutes. Contact was telebridged via K6DUE.

ARISS Mentor was ON4WF.

+ A Successful contact was made between Mimar Sinan Özel Okullari, Istanbul, Turkey and Samantha Cristoforetti IZØUDF using NA1SS The contact began 04-01 09:20 UTC and lasted about nine and a half minutes. Contact was telebridged via K6DUE.
ARISS Mentor was ON4WF.

>From 2015-05-11 to 2015-06-14, there will be no US Operational Segment (USOS) hams on board ISS. So any schools contacts during this period will be conducted by the ARISS Russia team.

[ANS thanks ARISS, Charlie AJ9N and David AA4KN for the above information]

Satellite Shorts From All Over

Links to ISS and SSTV Related Links as Reported by AMSAT-UK.ORG

ISS Fan Club - Tracking / Predictions
http://www.issfanclub.com/

Free MMSSTV Slow Scan TV software
http://hamsoft.ca/pages/mmsstv.php

iOS SSTV App
https://itunes.apple.com/gb/app/sstv/id387910013

For more on Slow Scan Television SSTV, see this article SSTV - The Basics
http://www.essexham.co.uk/sstv-the-basics

How to be successful with the ISS Slow Scan Television (SSTV) imaging system
http://www.marexmg.org/fileshtml/howtoissstv.html

IZ8BLY Vox Recoder, enables you to record the signals from the ISS on 145.800 MHz while you're away at work
http://antoninoporcino.xoom.it/VoxRecorder/

ARISS Slow Scan TV (SSTV) Blog and Gallery
http://ariss-sstv.blogspot.co.uk/

Information on the MAI-75 SSTV experiment
http://www.energia.ru/eng/iss/researches/education-26.html

Video showing reception of SSTV using the FUNcube Dongle Pro SDR and SDR-RADIO going into Virtual Audio Cable (VAC) then to MMSSTV software
https://www.youtube.com/watch?v=K6MOrX9iZCk

ISS SSTV received online with SUWS WebSDR
http://amsat-uk.org/2014/09/06/iss-sstv-on-suws-websdr/

[ANS thanks AMSAT-UK for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD
kc8yld at amsat dot org